

SOUNDSTREAM

OWNER'S MANUAL

X3.60 / X3.71

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INTRODUCTION

Amplifier's provide high-performance sound reinforcement for your mobile audio equipment. The Multi-Mode bridging capabilities allow flexibility in hosting several different speaker configurations.

To achieve optimum performance, it is highly recommended that you read this Owners Manual before beginning installation.

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FEATURES

X3.60

Max Power	4000Watts
Damping factor	350<@80Hz(+/- 5Hz)
Operating frequency(band-width)	15Hz ~150Hz
Input Sensitivity	0.5 ~ 10.0 (volts)
Low-Pass crossover slope attenuation factor	24dB / octave
Subsonic(cut/increase) range factor (15Hz ~ 40Hz)	18dB
Continuously variable low-pass control(range)	50Hz ~ 150Hz
Continuously variable phase control(range)	0 ~ 180 deg.
Continuously variable bass boost control(range)	0 ~ 18dB
Source voltage (Automobile battery)(range)	11 ~ 16V DC
Maximum DC current 1 Ohm, 1% THD +n	249 amperes DC *
Dimensions(L x W x H)	21" x 11.5" x 2.5"
Test voltage	13.5V DC & 14.4V DC
Platinum RCA connectors	
Strap-able; Slave-master relationship	

* "maximum" current consumption reading was extracted at the impedance specified and at a source voltage of 14.4V DC

**Source voltage is limited to 11V~16V.
If source voltage beyond this limit is applied to the Amplifier, the warranty will be voided.**

Specifications

X3.60		16 Volts DC			14.4 Volts DC			12 Volts DC		
Impedance Load	Measurement	1%THD	5%THD	10%THD	1%THD	5%THD	10%THD	1%THD	5%THD	10%THD
1 Ohm	RMS Wattage	2860	2940	3180	2780	2880	3115	2560	2635	2840
	RMS AC Volts	53.4	54.2	56.3	52.7	53.6	55.8	50.5	51.3	53.3
2 Ohm	RMS Wattage	2070	2130	2300	1920	1988	2150	1344	1380	1490
	RMS AC Volts	64.3	65.3	67.8	61.9	63	65.6	51.8	52.5	54.5
4 Ohm	RMS Wattage	1086	1120	1200	1050	1085	1178	898	925	998
	RMS AC Volts	65.9	66.9	69.3	64.8	65.8	68.6	59.9	60.8	63.1
4000 Watt 2-second Burp Power at 16V and 10%										



FEATURES

X3.71

Max Power	6500Watts
Damping factor	350<@80Hz(+/- 5Hz)
Operating frequency(band-width)	15Hz ~150Hz
Input Sensitivity	0.5 ~ 10.0 (volts)
Low-Pass crossover slope attenuation factor	24dB / octave
Subsonic(cut/increase) range factor (15Hz ~ 40Hz)	18dB
Continuously variable low-pass control(range)	50Hz ~ 150Hz
Continuously variable phase control(range)	0 ~ 180 deg.
Continuously variable bass boost control(range)	0 ~ 18dB
Source voltage (Automobile battery)(range)	11 ~ 16V DC
Maximum DC current 1 Ohm, 1% THD +n	510 amperes DC *
Dimensions(L x W x H)	23.75" x 11.5" x 2.5"
Test voltage	13.5V DC & 14.4V DC
Platinum RCA connectors	
Strap-able; Slave-master relationship	

* "maximum" current consumption reading was extracted at the impedance specified and at a source voltage of 13.5V DC

**Source voltage is limited to 11V~16V.
If source voltage beyond this limit is applied to the Amplifier, the warranty will be voided.**

Specifications

X3.71		16 Volts DC			14.4 Volts DC			12 Volts DC		
Impedance Load	Measurement	1%THD	5%THD	10%THD	1%THD	5%THD	10%THD	1%THD	5%THD	10%THD
1 Ohm	RMS Wattage	4650	4780	5180	4450	4580	4960	3560	3670	3950
	RMS AC Volts	68.1	69.1	71.9	66.7	67.6	70.4	59.6	60.5	62.8
2 Ohm	RMS Wattage	3400	3505	3780	3240	3330	3600	2310	2380	2570
	RMS AC Volts	82.5	83.7	86.9	80.5	81.6	84.8	67.9	69	71.7
4 Ohm	RMS Wattage	1805	1860	2010	1750	1800	1945	1270	1305	1410
	RMS AC Volts	84.9	86.3	89.7	83.6	84.8	88.2	71.3	72.25	75.1

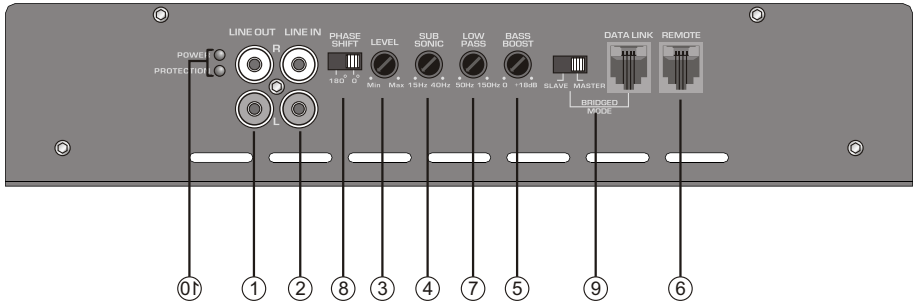
6500 Watt 2-second Burp Power at 16V and 10%



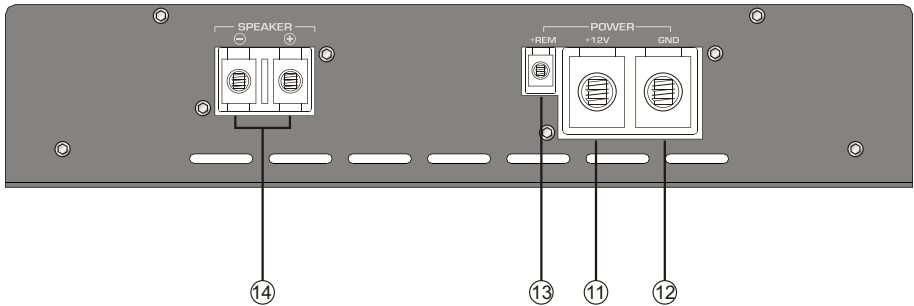
Controls & Functions

X3.60

<Front panel>



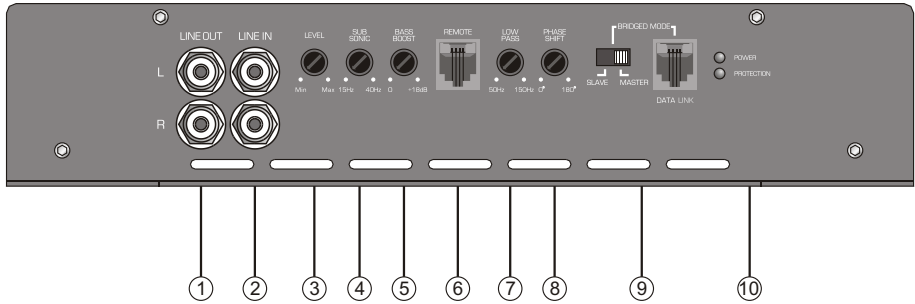
<Rear panel>



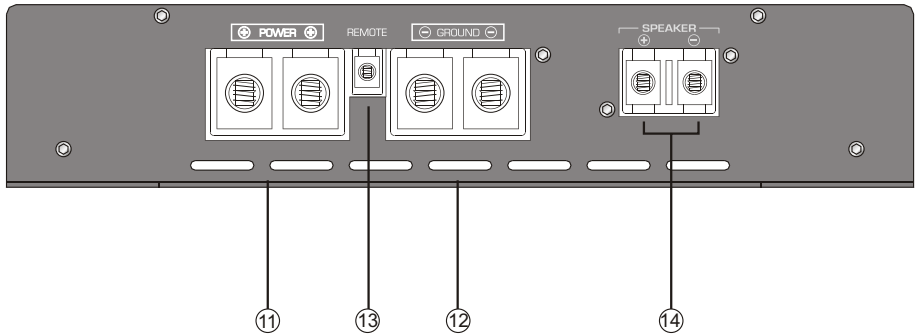
Controls & Functions

X3.71

<Front panel>

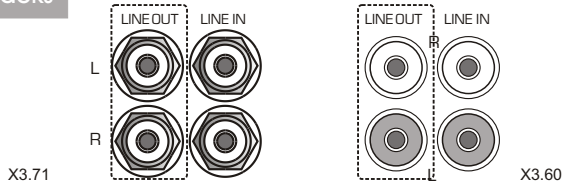


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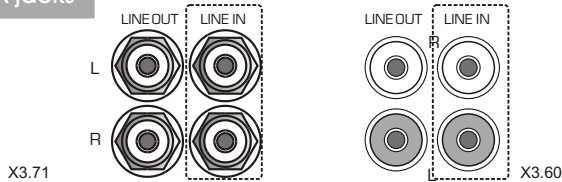
Controls & Functions

1. Low Level OUT RCA jacks



The LINE OUT allows you to build multiple amplifier systems without having to use splitter cords to distribute the signal. Now it is simply a matter of bringing one set of RCAs into the first amplifier, then using the line out RCA jacks as the feed to the next amplifier.

2. Low Level Input RCA jacks



These inputs are for signal cables from the source. Always use high quality shielded RCA cables.

3. Input Sensitivity Adjustment



This control allows you to vary the amplifier's input sensitivity between 0.5 (500 millivolts) and 10 volts. Clockwise (right-side) rotation raises the threshold and lowers the sensitivity, requiring higher input signal voltage from the source, in order to obtain maximum output. Counterclockwise (left-side) adjustment lowers the threshold and raises the sensitivity, requiring a lower source voltage from the headunit. The overall objective is to set this control to some intermediate point (0.5 - 10 volts), which closely matches the voltage produced by the headunit. Avoid setting the threshold too low and supplying excessive input signal voltage, as this would saturate the input stages and introduce unwanted distortion.

Controls & Functions

4. Subsonic Filter Control



Variable Subsonic Filter (15Hz - 40Hz) :

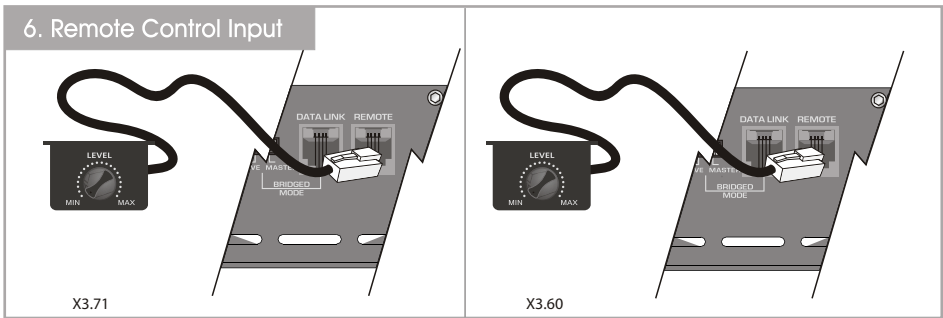
The Subsonic filter will roll off all of the unwanted frequencies below 15Hz - 40Hz. This will allow the amplifier to use that wasted power on the audible bandwidth.

5. Bass Boost Control



By using the bass boost function, bass notes at 45Hz are emphasized as much as 18dB.

6. Remote Control Input



Remote Bass Boost Control : This control adjusts the Bass Boost gain for the amplifier's speaker output (0 ~+18dB)

Controls & Functions

7. Low Level Filter Control



This control is used to set the desired low pass frequency (50 ~ 150HZ).

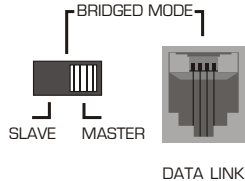
The filter acts to cut-off frequencies above the set-point. In general, the selected frequency should closely match the resonant frequency of the speaker box.

8. Phase Shift Control



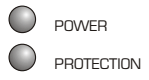
The Variable phase control allows you to adjust the *relative* phase relationship between your subwoofers and/or your subwoofers & other speakers in your system. This is done by varying the control between 0 and 180 degrees.

9. Bridged Mode



Controls & Functions

10. LED indicator

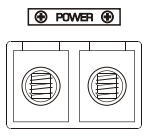


POWER : This GREEN LED will illuminate when the amplifier is turned "ON". If it fails to illuminate, check the power connections to the Amplifier and fuses.

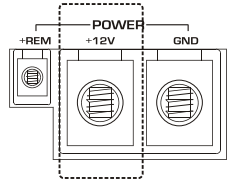
PROTECT: The amplifier protection circuitry will disable the amplifier if input overload, short circuit or extremely high temperature conditions are detected. When the protection mode is in operation, the red LED indicator on the side panel will be illuminated, indicating the amplifier has gone into a self-preservation mode.

If you observe that the Protection LED is lit, please check the system carefully to determine what has caused the protection circuit to engage. The amplifier can be reset by turning the remote power off and then on again. If the amplifier shut down due to a thermal overload condition, please allow it to cool down before restarting. If the amplifier shut down because of an input overload or short circuit, be sure to repair these conditions before attempting to power up the amplifier again.

11. Power(Battery positive)



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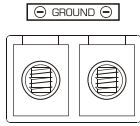


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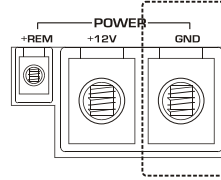
Due to the power requirements of the Amplifier, this connection should be made directly to the positive(+) terminal of battery. For safety measure, install an in-line fuse -Holder (not included)as close to the battery positive(+) terminal as possible with an ampere rating not to exceed the maximum current specified on page #3.

Controls & Functions

12.B-Terminal (Chassis ground)



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X3.60D

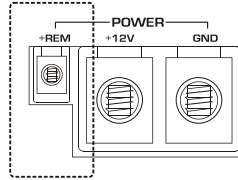
To avoid unwanted ignition noise caused by ground loops, it is essential that the Amplifier be grounded to a clean, bare, metal surface of the vehicles chassis.

Note : GROUND WIRE SHOULD NOT BE EXTENDED MORE THAN 3 FT (1 METER).

13. Remote Power On



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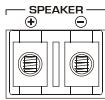
X3.60D

To remote wire From car stereo.

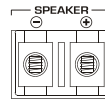
The amplifier is turned "ON" remotely when vehicle's stereo is turned "ON"

Note : IF YOUR RADIO DOES NOT HAVE + 12 VOLT OUTPUT LEAD WHEN TURNED ON, THE "REMOTE" TERMINAL ON THE AMPLIFIER CAN BE CONNECTED TO VEHICLES ACCESSORY CIRCUIT WHICH PROVIDES + 12V WHEN THE CAR IS ON.

14. Speaker Terminals



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X3.60D

Planning and Mounting Your System

The mounting position of your Amplifier will have a great effect on its ability to dissipate the heat generated during normal operation.

Under normal conditions, the heatsink will dissipate sufficient heat to avoid thermal shutdown. However please do not install the amplifier in a wooden box or similar device as this will prevent heat dissipation into the atmosphere.

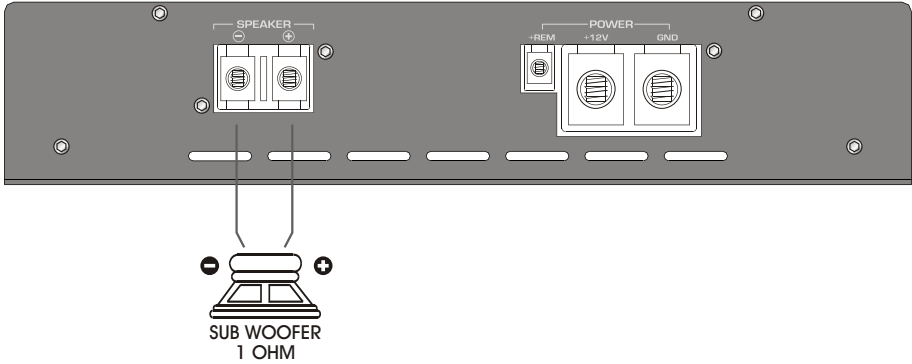
Temperatures in car trunks have been measured as high as (155°F) in the summer time. since the thermal shut-down point for the amplifier is (158°F) it is easy to see that it must be mounted for maximum cooling capability. To achieve maximum advantage of convection air flow in an enclosed trunk, mount the amplifier in a horizontal position.

Cooling requirements are considerably relaxed when mounting inside the passenger compartment since the driver will not often allow temperatures to reach a critical point. Floor mounting under the seat is usually satisfactory as long as there is at least 1 inch of clearance (2.54 cm) above the Amplifier's fins for ventilation.

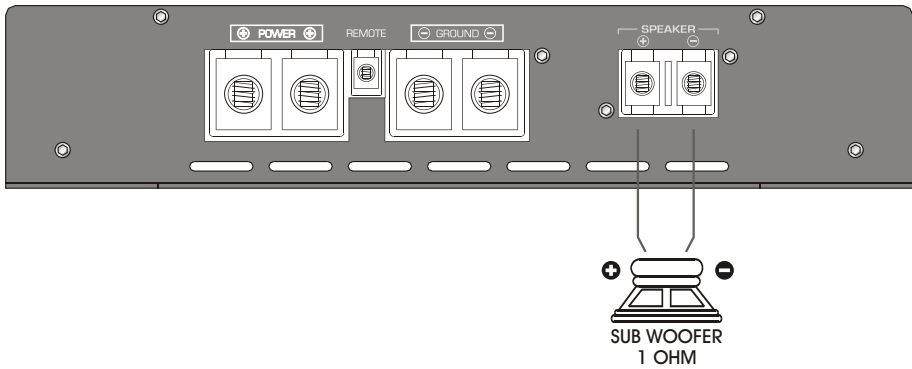
- A. Select a suitable location that is convenient for mounting, is accessible for wiring. And has ample room for air circulation and cooling.
- B. Use the amplifier as a template to mark the mounting holes. Remove the Amplifier and drill holes. Use extreme caution, inspect underneath surface before drilling!
- C. Secure the Amplifier using the screws provided.

Wiring Diagram

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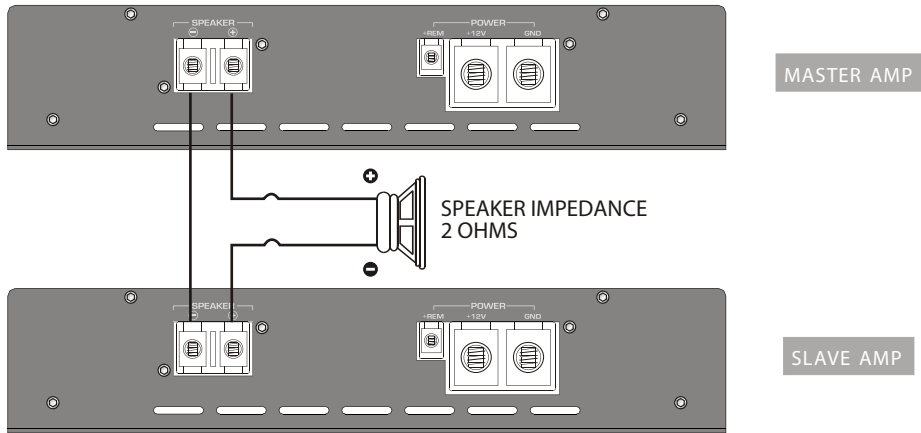
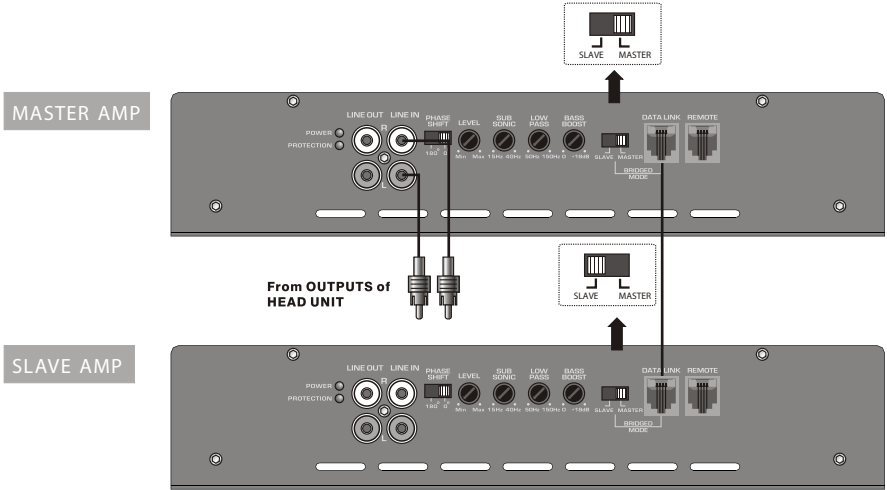


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Bridging Two Amplifiers

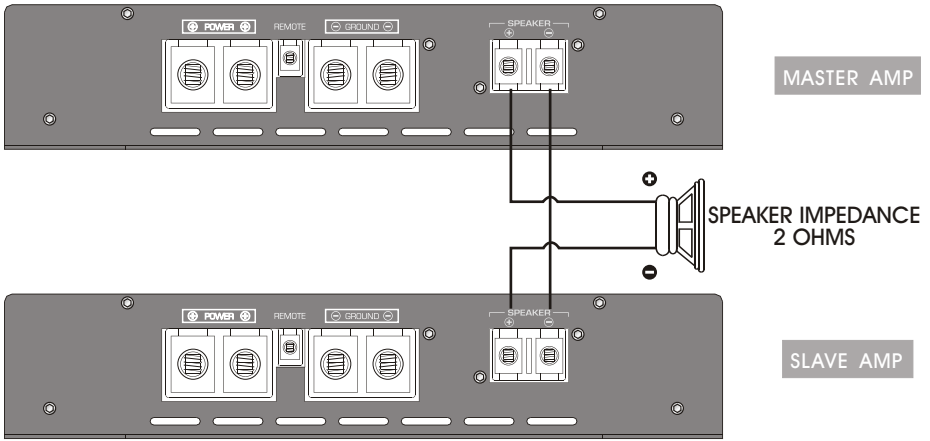
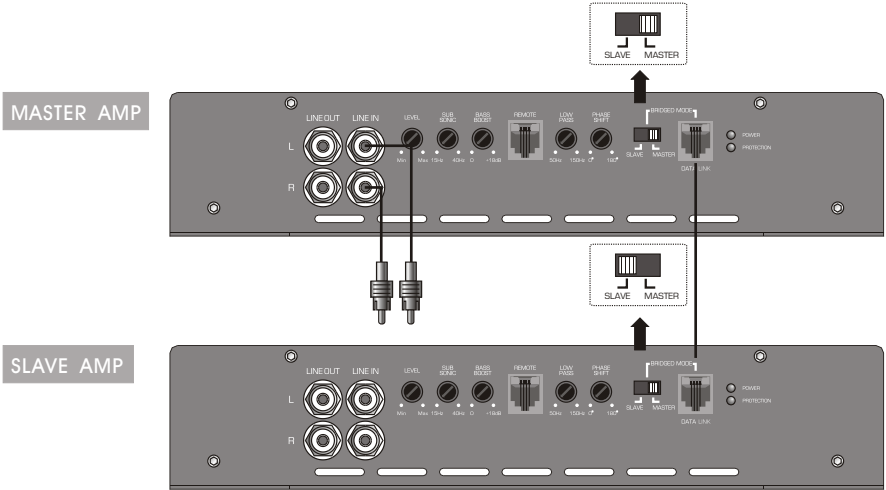
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BRIDGING TWO AMPLIFIERS

Bridging Two Amplifiers

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Tuning on the Amplifier

The amplifier automatically turns on a few seconds after you turn your vehicle's ignition switch to ACC or ON or turn on your auto sound system, depending on how you wired the system. The POWER indicator on the top of the amplifier lights when the amplifier is on.

Important : Your amplifier requires 30 amps or more of power from your vehicle's battery during operation. To protect your battery from discharging, do not operate the amplifier unless your vehicle is running.

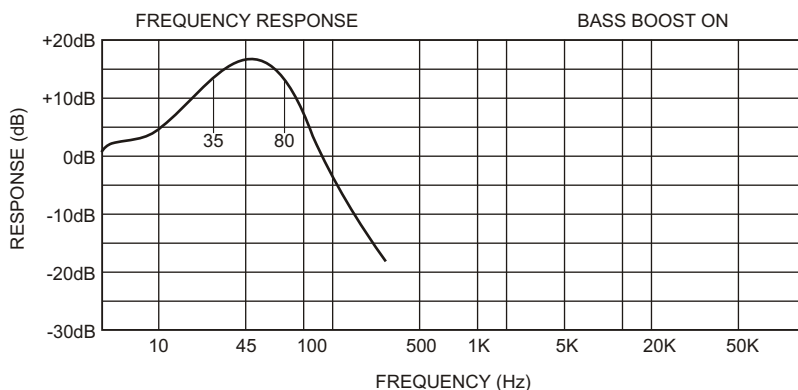
Adjusting The Audio Level

For the best performance, you must set GAIN (MIN / MAX) on the side of the amplifier to adjust the level of the audio signals that enter the amplifier.

1. Use a screwdriver to turn GAIN (MIN / MAX) fully counterclockwise to MIN.
2. Turn the auto sound system's volume control to about one-third of its full range.
3. Adjust GAIN (MIN / MAX) to a comfortable listening level.
4. Turn up the auto sound system's volume control until the sound begins to distort. Then immediately turn the volume down to a point just before where the distortion began.

Caution : Never turn up the auto sound system's volume control more than needed to adjust the audio level, more than two thirds of its maximum volume.

5. Adjust GAIN (MIN / MAX) until the sound is at the maximum level you want the amplifier to produce.
6. Adjust the auto sound system's volume control to a comfortable listening level.



NOTE: Raising the Bass frequency allows higher frequencies to reach the bass speakers while blocking lower frequencies from midrange speakers. Lowering the Bass frequencies allows lower frequencies to reach the midrange speakers while blocking higher frequencies from bass speakers.

Trouble Shooting

SYMPTOMS	CHECK	REMEDY
NO SOUND	Is the power LED illuminated? (NO)	Check all fuses to amplifier. Be sure Turn-on lead is connected Check signal leads. Check gain control. Check Tuner/Deck volume level. Clean contacts on fuse holders.
	Is the Diagnostic LED illuminated? (YES)	Check for speaker short or amplifier overheating.
AMP NOT SWITCHING ON	No power to power wire	Repair power wire or connections.
	No power to remote wire with receiver on	Check connections to radio.
	Burnt or broken fuse	Replace fuse
NO SOUND IN ONE CHANNEL	Check Speaker Leads	Inspect for short circuit or an open connection.
	Check Audio Leads	Reverse Left and Right RCA inputs to determine if the problem is occurring before the amp.
AMP TURNING OFF MEDIUM / HIGH VOLUME	Check Speaker load impedance	Be sure proper speaker load impedance recommendations are observed. (If you use an ohmmeter to check speaker resistance, please remember that DC resistance and AC impedance may not be the same.)
PROTECTION LAMP ON	Shut down	Turn radio down Wait for AMP to cool
	Speaker wires shorted	Separate speaker wires and insulate

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